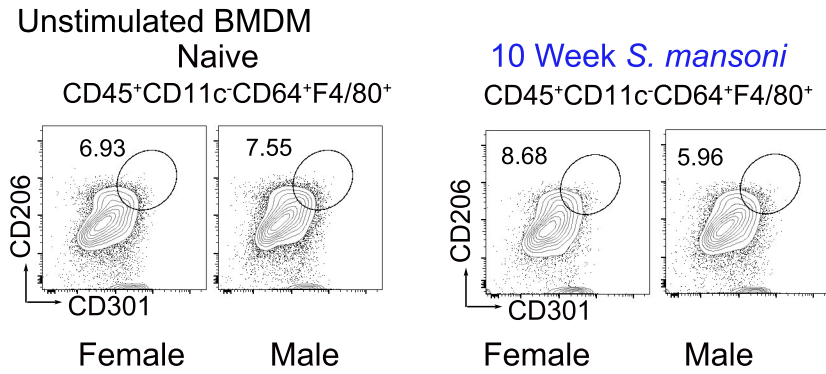


Supplementary Figure 1



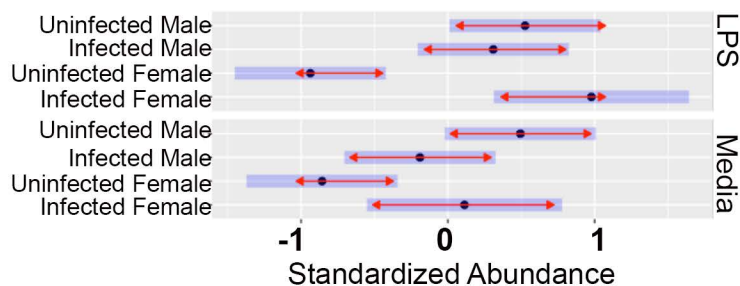
Supplementary Figure 1. BMDM derived from *S. mansoni* infected males and females are not alternatively activated. (A) Unstimulated BMDM from naive ApoE^{-/-} mice on HFD. (B) Unstimulated BMDM from 10 week *S. mansoni* infected ApoE^{-/-} mice.

A

Molecular feature	Effect size (eta squared)									Adjusted p-value						
	Coefficient	Importance score	Infection	Sex	Media	Infection:Sex	Infection:Media	Sex:Media	Infection:Sex:Media	Infection	Sex	Media	Infection:Sex	Infection:Media	Sex:Media	Infection:Sex:Media
PG 18:1_18:2	0.4428	100.0000	0.0288	0.2030	0.0261	0.1177	0.0233	0.0449	0.0000	0.1323	0.8898	0.7250	0.3622	0.8161	0.9745	0.9972
PG 18:1_22:5	0.2995	67.6219	0.0508	0.1274	0.0298	0.2653	0.0444	0.0009	0.0057	0.0171	0.7500	0.3728	0.0972	0.5891	0.9745	0.9967
BMP 16:0_18:1	0.2943	66.4469	0.0344	0.2386	0.3957	0.2535	0.0458	0.0051	0.0389	0.0112	0.8654	0.0343	0.0513	0.4217	0.9745	0.9537
BMP 16:0_18:1	-0.2884	65.1314	0.1651	0.0946	0.5496	0.4106	0.0740	0.0754	0.0766	0.0010	0.0043	0.0005	0.0152	0.4217	0.7370	0.9537
PG 20:4_20:4	-0.2446	55.2417	0.0305	0.0290	0.0004	0.3707	0.0160	0.0659	0.0291	0.0484	0.0790	0.7815	0.1205	0.9062	0.9745	0.9537
PG 16:0_18:2	0.2203	49.7407	0.0005	0.2169	0.7788	0.2178	0.0156	0.0212	0.0000	0.1303	0.8654	0.0005	0.1646	0.8567	0.9745	0.9972
BMP 22:4_22:5	0.2186	49.3521	0.0034	0.1335	0.0454	0.0042	0.0043	0.0680	0.0164	0.7241	0.9117	0.6433	0.8835	0.7354	0.9142	0.9967
LPE 18:1_d7	0.1650	37.2621	0.0484	0.1412	0.2852	0.0053	0.0154	0.0208	0.0013	0.8895	0.8654	0.1585	0.9068	0.9062	0.9745	0.9972
PI 15:0_18:1_d7	-0.1315	29.6880	0.0502	0.0271	0.0046	0.0001	0.0055	0.0003	0.0031	0.8895	0.8654	0.7815	0.9013	0.8564	0.9745	0.9967
PG 20:3_22:6	-0.1152	26.0116	0.2722	0.0291	0.1021	0.0363	0.0338	0.0132	0.0091	0.0262	0.5341	0.1871	0.4458	0.5891	0.9745	0.9967
BMP 22:6_22:6	0.0972	21.9517	0.2267	0.1593	0.2785	0.0962	0.0036	0.0063	0.0738	0.0112	0.8319	0.9555	0.1205	0.4948	0.9142	0.9537
BMP 18:1_22:4	-0.0882	19.9204	0.1333	0.0060	0.2395	0.3092	0.0221	0.0895	0.0546	0.0034	0.0301	0.0159	0.0235	0.4409	0.7370	0.9537
PG 16:1_18:2	0.0844	19.0487	0.0196	0.1398	0.1288	0.0447	0.0820	0.0154	0.0081	0.5644	0.8919	0.9555	0.7790	0.7646	0.9745	0.9967
PG 20:3_20:4	-0.0762	17.2121	0.0032	0.0351	0.5305	0.0971	0.0043	0.1257	0.0057	0.4312	0.2361	0.0154	0.4879	0.9873	0.9213	0.9967
PG 18:1_20:3	-0.0615	13.8908	0.0317	0.0005	0.0005	0.1592	0.0094	0.0014	0.0039	0.1569	0.6686	0.9231	0.3622	0.9873	0.9745	0.9967
BMP 22:5_22:5	0.0612	13.8142	0.0012	0.2013	0.3596	0.0012	0.0711	0.0095	0.0001	0.4864	0.8319	0.6634	0.9013	0.5994	0.9745	0.9972
PG 18:2_20:4	-0.0556	12.5645	0.0262	0.0017	0.0995	0.1701	0.0746	0.0594	0.0032	0.0720	0.3655	0.1743	0.3307	0.7354	0.9745	0.9967
BMP 18:0_22:5	-0.0432	9.7590	0.1017	0.0000	0.0186	0.2283	0.1339	0.0129	0.1197	0.0025	0.0790	0.1253	0.0235	0.2323	0.7370	0.7578
PG 18:3_22:6	-0.0116	2.6136	0.0057	0.0201	0.0156	0.0250	0.0841	0.0477	0.0138	0.8895	0.9117	0.3840	0.4590	0.8161	0.9745	0.9967
PG 22:4_22:6	-0.0032	0.7160	0.0110	0.0251	0.1346	0.2705	0.1861	0.0485	0.0003	0.4918	0.4876	0.0564	0.1164	0.4217	0.9745	0.9972
BMP 22:4_22:6	0.0024	0.5398	0.0649	0.1576	0.2978	0.0666	0.0271	0.0440	0.0051	0.1013	0.8654	0.9107	0.4026	0.6800	0.9213	0.9967

B

PG 18:1_18:2



Supplementary Figure 2. Elastic Net Machine Learning Model identifies a *S. mansoni* induced sex-specific lipidomic profile. (A) Table of the 20 lipid features retained from an elastic net machine learning model. Negative values of the coefficient indicate that an increase in abundance of the compound is on average associated with a decrease in the probability that the sample comes from a female animal. (B) Visualization of the top lipid feature showing sex related differences in groups following LPS stimulation.